

Y-STC 1984 Software Terms and Conditions (IBM) RORROWER'S NAME Y-STC 1984 SOFTWARE TERMS AND CONDITIONS

Presented To: IBM CORPORATION

July 3, 1984



STUDY OBJECTIVES

- Identification of marketing practices involving software terms and conditions.
- Areas Covered:
 - Licensing.
 - Redistribution.
 - Installation.
 - Maintenance.
 - Marketing approaches.
 - Discounting
 - Future Trends

METHODOLOGY

- This project was designed to update the information provided to IBM in May, 1982.
- Substantially all of the same companies interviewed in 1982 were interviewed again.
 - C.D.C. was added at the request of IBM
 - The following substitutions had to be made:
- MDSI substituted for U.C.C.
- Companies interviewed in June, 1984.
 - Mainframe (5).
 - Minicomputer (6).
 - Software (15).
- Vendor management interviewed by telephone by INPUT staff.
- IBM not identified.

METHODOLOGY - CONTINUED

- Interview directed at public information.
 - Respondents could indicate if data was proprietary.
- Lengthy questionnaire.

HARDWARE COMPANIES INTERVIEWED

- Mainframe Companies.
 - Control Data Corp.
 - Honeywell.
 - Univac.
 - Amdahl.
 - Burroughs.
- Minicomputer Companies.
 - Perkin-Elmer.
 - Gould Computer Systems Division.
 - Digital Equipment Corporation.
 - Hewlett-Packard.
 - Data General.
 - Prime Computer.



SOFTWARE COMPANIES INTERVIEWED

Informatics

- Mathematica
- Computer Associates
- Software AG (X)

SDC

- MRI Systems
- Boole & Babbage
- Pansophic

Cincom

MDSI (X)

Nixdorf

- MSA
- McCormack & Dodge
- Cullinet

- ADR
- (X) Not included in preliminary report.



INTERVIEWEES

• Sales & Marketing - 5

• Product Management - 7

• Legal/Administrative - 10

• Other - 4

26



KEY

- ${\sf N}$ Negative answer to question.
- Y Positive answer to question.
- X Option is available.
- - Option is not available.
- DK Don't Know interviewee could not (would not) provide data.
- N/A Not applicable



VARIATIONS IN TERMS AND CONDITIONS

- Some hardware firms still bundle.
 - Three of five mainframe companies.
 - Three of six minicomputer companies.
 - Most bundling involves system software, not application software.
- All but one hardware vendor (Amdahl) mentioned separate contract for microcomputer software.
- Micro-computer software involves terms and conditions different from other software.





		PRODU	PRODUCTS OFFERED	FERED		<u> </u>	TERMS & CONDITIONS		LICENSE
HARDWARE VENDOR	77∀	OPERATING SYSTEMS	SYSTEMS	NOITADIJ49A TAO99U2	APPL ICATION PACKAGES	ALL SAME?	DIFFERENCES	SOFTWARE SEPARATE	IN HARDWARE
MINI COMPUTERS:									
Perkin-Elmer	1	ı	ı	1	×	>	ı	×	×
Gould	×	×	×	×	×	>-	Ĺ	×	×
DEC	×	×	×	×	×	>-	, .	×	Only Operating Systems
Hewlett-Packard	×	×	×	×	×	>	ı	×	×
Data General	×	×	×	×	×	>-	Reeyaluating T&C for Application Pack	×	×
Prime Computer	×	×	×	×	×	> -	1.	×	Only Operating Systems



		PRODU	PRODUCTS OFFERED	FERED		TE	TERMS & CONDITIONS		LICENSE
SOFTWARE	JJA	OPERATING SYSTEMS	SYSTEMS SUPPORT	APPLICATION TAO99US	APPL ICATION PACKAGES	SAMES ALL SAMES	DIFFERENCES	SOFTWARE	IN HARDWARE
SOFTWARE:									
Informatics	ı	ı	ı	×	ı	>-		×	×
Computer Associates	×	×	×	×	×	>-		×	ı
SDC	ı	ı	1	×	×	>-		×	ı
Boole & Babbage	ı	. 1	×	ı	ı	>-		×	ı
Cincom	t	1	ı	×	×	>-		×	1
Nixdorf	×	×	×	×	×	>-		×	1
McCormack & Dodge	ı	ı	t	×	×	>		×	ı
ADR	ı	ı	×	×	×	>-		×	ŧ
Mathematica	1	ı	1	×	×	z	DBMS - 25 yr. lease Others-Perpetual license	×	1 .
Software AG									



		PRODU	PRODUCTS OFFERED	FERED		TEI	TERMS & CONDITIONS		LICENSE
SOFTWARE VENDOR	ALL	OPERATING SYSTEMS	. SYSTEMS TAO99US	NOITADIJ99A TAO99U2	PPPLICATION PACKAGES	ALL SAME?	DIFFERENCES	SOFTWARE	IN HARDWARE
	1	ı	×	ı	×	>-		×	ı
	ı	ı	×	ı	ı	>-		×	ı
	ı	ı	ŝ	t	×	>-		×	t
	ı	×	ı	×	ı	>-		×	ſ.



LICENSE TYPES

Wide variety of offering.

	HARDWARE	SOFTWARE
	COMPANIES	COMPANIES
Leases	36%	60%
Rental	55%	62%
Usage	0%	38%
Paid-up	27%	77%
One-Time	55%	92%

One time charge proportion of sales varies widely.

- Hardware companies: 10 - 100%

- Software companies: 0 - 100%



	язнто	z	Z	z	z	z		Z	z	*
	ONE-TIME CHARGE (PERCENT OF SALES)	100%	i	10%	ι	DK		100%	DK	%66
	ONE-TIME CHARGE OFFERED	>-	>-	>-	>-	>-		>-	>-	>
	PAID- UP	z	Special Arrange- ments	Z	z	>-		z	>-	z
	USAGE	z		z	z	Z		z	z	Z
	PAYMENT FOR CHANGES			No Charge	t	No Charge		No Charge	1	DK
	MULTI		ı	ı	1.	ţ		1	ı	12
RENTAI	INITIAL 337	1	z	Z	z	z		ı	8	z
	PAYMENT TYPE (MO., YR.)	z	Both (Optional)	Month	Both (Optional)	Month		Z	Z	Month
	LEASE PERIOD (YEARS)	z		1-5	Z	1-5		z	Z	Z
	VENDOR	MAINFRAMES:	C.D.C.	Univac	Amdahl	Burroughs	MINI COMPUTERS:	Perkin-Elmer	bluo	DEC

* Loan Agreement - Free Trial Use



	язнто	*	Z	z	
	ONE-TIME CHARGE (PERCENT OF SALES)	ı	100%	%08	
	ONE-TIME CHARGE OFFERED	>	>	>-	
	PAID- UP	Z	Z	>-	
	USAGE	z	z	z	
	PAYMENT FOR CHANGES	t		No Charge	
	MULTI PLIER	ı	ı	DK	
RENTAL	INITIAL FEE	1	ı	>-	
	PAYMENT TYPE (MO., YR.)	Z	Z	Month	
	LEASE PERIOD (YEARS)	z	z	1-5	
	VENDOR	Hewlett-Packard	Data General	Prime	

Unlimited Right to Copy Purchase - System Support Products Only



	ОТНЕВ	Z	z	Z	z	Z	Z	Z	Z	z
	ONE-TIME CHARGE (PERCENT OF SALES)	95%	DK	20%	100%	%02	25%	%86	DK	%26
	ONE-TIME CHARGE OFFERED	\	>-	>-	>-	>-	>-	>	>-	>-
	PAID- UP	>	>-	>-	z	۲- 25 ۲r.	>-	>-	>-	>-
	USAGE	Z	Z	No. of Trans- actions	Z	No. of term. Type op. sys proces.	z	Z	Z	Proces. size
	PAYMENT FOR CHANGES	ı	Z	ı	ı	I	No Charge	ı	No Charge	No Charge
	MULTI	ı	ı	ı	1	1	ı	1	B	ı
RENTAL	INITIAL	Z	z	ı	ı	Z	z	1	Z	Z
	PAYMENT TYPE (MO., YR.)	Month, yr. quarterly	Month-year	Z	Z	Month	Month	Z	Month 3 Mo. Min.	Month
-	LEASE PERIOD (YEARS)	1-4	1-3	3 + 5	Z	F	1-5	က	3+5	25-DBMS only
	VENDOR	Informatics	Computer Associates	SDC	Boole & Babbage	Cincom	Nixdorf	McCormack & Dodge	ADR	Mathematica



	ОТНЕВ		z	z	Z	Z
	ONE-TIME CHARGE (PERCENT OF SALES)		%56	75%	100%	%0
	ONE-TIME CHARGE OFFERED		>-	>-	>-	Z
	PAID- UP		>-	>-	z	Z
<u> </u>	USAGE		z	>-	Op sys type	Z
	PAYMENT FOR CHANGES		į	Reduced charge	t	No charge
AL	MULTI		ı	1	ı	
RENTA	JAITINI 337		ı	z	ı	z
	PAYMENT TYPE (MO., YR.)		Z	Month	Z	Month
	LEASE PERIOD (YEARS)		1-3	1-5	Z	1-5
	VENDOR	Software AG	MRI Systems	Pansophic MDSI	MSA	Cullinet



CONDITIONS ON PAID-UP AND ONE-TIME CHARGE

- Vendor almost always retains rights and prevents customer resale.
 - Only exception is Gould.
- Vendors do not buy back code no exceptions.
- Trend is towards providing credits to encourage upgrades.
 - Hardware vendors.
 - Software Vendors.



PAID-UP AND ONE-TIME CHARGE CONDITIONS

	RETAINS	CUSTOMER		VENDOR	UPGRADE	
VENDOR	RIGHTS'	RESALE	RESTRICTIONS	BUYS BACK	INCENTIVE	
MAINFRAMES:						
	Vendor	z		Z	100% credit	
Honeywell	Vendor	z		Z	Special Cases	
	Vendor	z	ı	z	Credit	
	Vendor	z	ı	ı	ı	
Burroughs	Vendojr	z	ţ.	Z	t	
MINI COMPUTERS:						
Perkin-Elmer	Vendor	γ (Permission to Transfer)	None	Z	Lower Charge	
	OEMS- Customer; End-User - Vendor	Z	None	z	Credit	
	Vendor	>-	DK	N/A	Credit-Varies	
Hewlett-Packard	Vendor	DK	ı	ı	Service Contract	



PAID-UP AND ONE-TIME CHARGE CONDITIONS

UPGRADE INCENTIVE	
VENDOR BUYS BACK	z z
RESTRICTIONS	
CUSTOMER RESALE	z z
RETAINS RIGHTS'	Vendor
VENDOR	Data General Prime



VENDOR	RETAINS RIGHTS'	CUSTOMER RESALE	RESTRICTIONS	VENDOR BUYS BACK	UPGRADE
Software:					
Informatics	Vendor	Z		Z	Support Enhancements
Computer Associates	Vendor*	Z	1	Z	ı
SDC	Vendor	Z	1	Z	ı
Boole & Babbage	Vendor	Z	ı	Z	Credit-Varies
Cincom	Vendor	Z	1	Z	Credit-Varies
Nixdorf	Vendor	z	1	Z	ı
McCormack & Dodge	Vendor	Z	1	Z	ı
ADR	Vendor	* * >	Assignee must adhere to original contract terms	Z	Credit
Mathematica	Vendor	Z	1	z	Credit-Varies
Software AG					
MRI Systems	Vendor	Z	1	Z	Credit
Pansophic	Vendor	Z	ı	Z	1
MDSI					
+ Fxcon+	Except for applications		** With permission to re-assign	u	

** With permission to re-assign

* Except for applications



UPGRADE INCENTIVE	1 1
VENDOR BUYS BACK	z z
RESTRICTIONS	
CUSTOMER RESALE	z z
RETAINS RIGHTS'	Vendor
VENDOR	MSA Cullinet



PURCHASE CREDITS

- Software firms somewhat more likely to give credits (53%) than hardware companies (40%).
- Maximum credit accruable shows great variation.
 - Minimum 33%.
 - Maximum 100%.



VENDOR	N/A	NO NO NE	YES	PERCENT OF PAYMENT	MAXIMUM PERCENT ACCRUABLE	MAXIMUM MONTHS ACCRUABLE
MAINFRAMES:						
C.D.C.		1	×	t	100%	1
Honeywel1	ı	×	1	1	ı	ı
Univac	i	t	×	ı	ı	Varies
Amdahl	×	ŧ	ı	ı	ι	ı
Burroughs	ŧ	×	ı	ı	ſ	t
MINI COMPUTERS:						
Perkin-Elmer	ı	×	ı		ı	ı
Gould	×	t	ţ	,	ı	ı
DEC	ı	×	ı	ſ	ı	i
Hewlett-Packard	ı	ı	ı	j	1	ı
Data General	i	×	ı	ı	ı	ı
Prime	ı	ı	×	DK	DK	DK



MAXIMUM MONTHS ACCRUABLE		12	1	1	ı	1	1	ı	9	2 Months		ı	1	
MAXIMUM PERCENT ACCRUABLE		33	1	ı	ı	ı	ı	1	20	ı		1	ı	
PERCENT OF PAYMENT		1st year 100%	ı	Varies	1	ı	ı	1	ı	ı		1	ı	
YES		×	ı	×	ı	ı	ı		×	×		ı	í	
NONE		1	×	ı	ı	ı	×	ı	ı	ı		×	×	
N/A		1	1	ı	×	×	1	*	ı	ı		ı	1	
VENDOR	SOFTWARE:	Informatics	Computer Associates	SDC	Boole & Babbage	Cincom	Nixdorf	McCormack & Dodge	ADR	Mathematica	Software AG	MRI Systems	Pansophic	



MAXIMUM MONTHS ACCRUABLE		- Negotiable	
MAXIMUM PERCENT ACCRUABLE		- Negotiable	
PERCENT OF PAYMENT		- Negotiable	
YES		ı ×	
NONE		1 1	
N/A		× 1	
VENDOR	MDSI	MSA Cullinet	



DISCOUNTS

- Discounts usually for volume and multi-site.
 - Universal for software companies.
- Other forms of discount rare.
- Discount arrangements vary and are often negotiable.
 - Second user discount of 20-50% common.
- Sensitive item for several vendors.



DISCOUNTS AND FINANCIAL INCENTIVES

DISCOUNT SCHEDULE SUMMARY		Volume-5% decrements per 25 copies	Varies with family and number of systems	40%-60% generally available under Multiple System Licence Plan	Support restrictions	ſ		2nd & subsequent at same facility suject to lower royalties	Negotiable	Negotiable	50% - 2nd and subsequent
USER COPIES		z	>	>-	>	Z		Z	>-	>	>-
OTHER		z	z	Z	z	Z		Z	z	z	>-
PRENT PAYMENT		Z	Z	Z	Z	z		Z	z	Z	Z
MULTI- SITE		Z	>-	>-	z	z		Z	>-	Z	z
SYSTEM MULTI-		z	>-	>	>	z		>-	>-	>	Y, exc, op.
VOLUME		>-	>-	>-	Z	Z		>-	>-	>-	Y, except op, sys.
VENDOR	MAINFRAMES:	C.D.C.	Honeywell	Univac	Amdahl	Burroughs	MINI COMPUTERS:	Perkin-Elmer	Gould	DEC	Hewlett-Packard



DISCOUNT SCHEDULE SUMMARY	Varies by product	Varies by product	
USER COPIES	z	z	
ОТНЕВ	Z	Z	
- РРЕ- РАУМЕИТ	z	Y M	
MULTI- SITE	Z	>-	
SYSTEM MULTI-	>	>-	
VOLUME	>	> /	
VENDOR	Data General	Prime	



DISCOUNT SCHEDULE SUMMARY		15% - 3 or more; Negotiable	DK	Varies	25% - 2nd,3rd; 50% - 4th +	40% - 2nd - 10th; 50% - 11th-15th;60% - 16th +	Matrix against 4 product lines	Proprietary	20% - 2nd & subsequent	ı		No formal schedule	10%-2nd & 3rd; 15%-4th&5th;20%-6th-8th; 25%-9th +	
USER COPIES		Z	Z	z	Z	Z	Z	Z	Z	Z		>-	Z	
OTHER		>-	Z	z	z	z	z	*	Z	Z		z	Z	
PRYMENT		z	Z	Z	Z	z	z	Z	Z	Z		>-	z	
MULTI- SITE		>-	>-	>-	>-	>-	>-	>-	>-	Z		>-	>-	
MULTI- SYSTEM		>-	>-	>-	>-	>-	7	>-	>-	z		>-	>-	
VOLUME		>-	>	>-	>	>-	>-	>-	>-	Z		>-	>-	
VENDOR	SOFTWARE:	Informatics	ComputerAssociates	SDC	Boole & Babbage	Cincom	Nixdorf	McCormack & Dodge	ADR	Mathematica	Software AG	MRI Systems	Pansophic	



DISCOUNT SCHEDULE SUMMARY	Proprietary	Varies - No formal schedule	
USER COPIES	Z	Z	
ОТНЕК	z	Z	
PRYMENT	z	Z	
MULTI- SITE	>-	>-	
SYSTEM MULTI-	>-	>-	
VOLUME	>	>-	
VENDOR	M.D.S.I.	Cullinet	



PRICE PROTECTION

- Varies greatly by vendor and by license type.
- Trend is away from price protection.



		LIC	LICENSE TYPE	
VENDOR	LEASE	RENTAL	PAID-UP	USAGE
MAINFRAMES:				
C.D.C.	N/A	N/A	N/A	N/A
Honeywell	>-	\	\	N/A
Univac	*	*\	N/A	N/A
Amdahl	z	Z	Z	Z
Burroughs	>-	>	>-	ŊĄ
MINI COMPUTERS:				
Perkin-Elmer	Z	Z	Z	Z
Could	N/A	N/A	>-	N/A
DEC	N/A	>-	N/A	N/A
Hewlett-Packard	N/A	N/A	N/A	N/A
Data General	N/A	ΝΆ	N/A.	NA
Prime	>-	>-	>-	N/A

* 12 Month Limit



		ΓΙC	LICENSE TYPE	
VENDOR	LEASE	RENTAL	PAID-UP	USAGE
SOFTWARE:				
Informatics	>-	>-	>-	N/A
Computer Associates	Micro Only	Micro Only	Micro Only	N/A
SDC	>-	>	>-	Z
Boole & Babbage	N/A	N/A	N/A	N/A
Cincom	z	Z	>-	Z
Nixdorf	*	*	*	N/A
McCormack & Dodge	Z	N/A	z	N/A
ADR	90 days	90 days	90 days	90 days
Mathematica	Z	z	z	z
Software AG				
MRI Systems	>	N/A	>-	N/A
Pansophic	>	>	>-	\
M.D.S.I.				

* They retain right to raise price in contract, but as a rule do not.



		LIC	LICENSE TYPE	
VENDOR	LEASE	RENTAL	PAID-UP	USAGE
MSA	N/A	N/A	N/A	N/A
Cullinet	Z	Z	N/A	N/A



LICENSING FOCUS

	HARDWARE	SOFTWARE
LICENSED TO:	COMPANIES	COMPANIES
CPU Serial Number	64%	31%
System Type	18%	8%
User Site	18%	62%
User Firm	27%	31%

- Enforcement now seen as a business problem.
- Contract terms often monitored through field support services.
- Several respondents commented on being involved in contract litigation.



VENDOR	CPU SERIAL NUMBER	SYSTEM TYPE	USER	USER FIRM	ОТНЕК	LICENSING ENFORCEMENT
MAINFRAMES:						
C.D.C.	ı		ı	×	I	License agreement - Difficult.
Honeywell	×	1	1	t	i	Contract-But rely on customer integrity.
Univac	i	ŝ	×	×	*NdS	Legal controls; Monitor usage through central support facility
Amdahl	×	ı	ı	ľ	ı	Terminate license upon violation
Burroughs	×	ţ	1	ι	ι	Through maintenance.
MINICOMPUTERS:						
Perkin-Elmer	×	ı	ſ	ı	ŧ	Security-permission disk (only runs on one CPU.
Gould	×	t	ţ	ı	í	Contracts.
DEC	×	ŧ	ţ	ı	t	New products tied to CPU serial# Maintenance activities detect misuse.
Hewlett-Packard	1	×	L	1	ı	Can't do.

* Software Processing Unit



LICENSING ENFORCEMENT	Contract Manual policing through field service
OTHER	, I
USER FIRM	ı ×
USER	I ×
SYSTEM TYPE	I ×
CPU SERIAL NUMBER	×
VENDOR	Data General



LICENSING ENFORCEMENT		No policing procedure.	Terminate and sue.	Not done.	No problem.	Contract; CPU serial #.	Depends on how flagrant misuse is.	No problem-no support without license.	Contracts; Customer integrity.	Contracts and legal channels.		Can't enforce.	Rely on customer integrity.		
ОТНЕК		ı	ı	ı	ı	ı	Chassis) > cell	ı	ı		ı	l		
USER FIRM		×	ı	l ·	ı	ı	ı	×	×	ı		ţ	ı		
USER SITE		×	×	ľ	×	×	t	×	ı	ı		×	×		
SYSTEM TYPE		ı	ı	×	ı	ı	ı	ı	ı	1		ı	e e		
CPU SERIAL NUMBER		1	×	ı	×	×	ı	I	ŝ	×		ı	t		
VENDOR	SOFTWARE:	Informatics	Computer Associates	SDC	Boole & Babbage	Cincom	Nixdorf	McCormack & Dodge	ADR	Mathematica	Software AG	MRI Systems	Pansophic	M.D.S.I.	



LICENSING ENFORCEMENT	Legal Channels.	No support without license.	
ОТНЕВ	ı	ī	
USER FIRM	ſ	×	·
USER	×	ţ	
SYSTEM	ŧ	ſ	
CPU SERIAL NUMBER	ľ	ſ	
VENDOR	MSA	Cullinet	



UPGRADES/ENHANCEMENTS

	HARDWARE	SOFTWARE
	COMPANIES	COMPANIES
No Change	45%	38%
Additional Charge	36%	15%
In Maintenance Fee	64%	92%
New Product	18%	15%



ОТНЕК		ı	1	1	ı	1		1	ı	1	ı	
NONE PLANNED		ı	ł	t	1	ţ		×	ı	1	î	
NEW PRODUCT		ı	×	1	1	ı		l	1	1	×	
IN MAINTENANCE		ı	×		Appl. Support only	×		1	×	×	ı	
CHARGED		×	×	1	Operating Systems only	ı		ľ	ţ	į	×	1
NO CHARGE		ı	×	X Contract reserves right to change	Sys. Support only	ī		*	ı	Only Systems	1	
VENDOR	MAINFRAMES:	.D.C.	Honeywell	Univac	Amdahl	Burroughs	MINI COMPUTERS:	Perkin-Elmer	Gould	DEC	Hewlett-Packard	

* No precedent - could change



SOFTWARE UPGRADES/ENHANCEMENTS

ОТНЕК	ı	,	
NONE	ı	ı	
NEW		ı	
IN MAINTENANCE	×	×	
CHARGED	ı	1	
NO CHARGE	ı	1	·
VENDOR	Data General	Prime	



SOFTWARE UPGRADES/ENHANCEMENTS

			· · · · · · · · · · · · · · · · · · ·												
ОТНЕК		ı	t	ı	I	1	ı	ι	ι	ı		ŧ	ı	ŧ	
NONE PLANNED		1	ŧ	1	ŧ	ı	ţ	ŧ	ı	ı		X-Appl.	1	i	
NEW PRODUCT		ı	ı	ı	ı	×	×	ı	1	ŧ		ŧ	ŧ	į	
IN MAINTENANCE		×	×	×	1	×	×	×	×	×		i	×	×	
CHARGED		1	ı	1	i	×	1	ı	ı	1		×	ı	ŧ	
NO CHARGE		1	1	1	×	×	×	×	ı	į		ı	ł	f	
VENDOR	Software:	Informatics	Computer Associates	SDC	Boole & Babbage	Cincom	Nixdorf	McCormack & Dodge	ADR	Mathematica	Software AG	MRI Systems	Pansophic	M.D.S.I.	



SOFTWARE UPGRADES/ENHANCEMENTS

VENDOR	NO CHARGE	CHARGED	IN MAINTENANCE	NEW PRODUCT	NONE PLANNED	OTHER
MSA	1	ı	×	Ί	ı	I
Cullinet	×	ı	×	i		ı
			·			



SOURCE CODE

- Hardware companies more likely to deliver source code (82%)
 than software companies (about 54%).
 - Extra fee often charged by hardware comapnies.
 - Usually in machine readable form.
- Most firms have some form of software protection.
 - Hardware firms always copyright (100%).
 - Software firms both copyright (85%) and trade secret (77%).
- Attitudes on enforcement vary widely.
 - Most see enforcement as difficult.



CTION	ENFORCEMENT	Difficult; Contracts.	Can't enforce.	Can't do.	Strict contracts,	Manual process
SOFTWARE PROTECTION	ОТНЕВ	None	1	ı	í	ţ
	TRADE SECRET	ı	ι	ι	×	ŀ
	-Y907 R1GHT	×	×	×	×	×
ERY	EICHE WICKO-	×	ı	1	ŀ	I.
DEL IVERY MEANS	MACHINE 3 AGADABLE	×	×	×	×	×
	SOURCE CODE DELIVERY	Need to know- Extra Fee	Varies-Extra Fee	Extra Fee	Need to Know*	Op. SysNormally Others-Need to know
	VENDOR	Gould	DEC	Hewlett-Packard	Data General	Prime

* Offer special source license agreement



)TECTION	ENFORCEMENT		Copy-prevention mechanism		Contractual restrictions Tape monitoring	Terminate license upon violation	Manually		Permission disk
SOFTWARE PROTECTION	ОТНЕВ		t			t	į.		ŧ
	TRADE		×	×	×	×	×		X
	COPY- RIGHT		×	×	×	×	×		×
DEL IVERY MEANS	EICHE WICKO-		1	t	t .	1	1		ı
	MACHINE		- 1	×	×	×	×		ı
	SOURCE CODE DELIVERY		Never	Special Arrangement Extra Fee	Major sys. Normally Extra Fee	Extra Fee	Need to know - Extra Fee		Never
	VENDOR	MAINFRAMES:	C.D.C.	Honeywell	Univac	Amdahl	Burroughs	MINI COMPUTERS:	Perkin-Elmer



TION	ENFORCEMENT		Contracts.	Legal channels.	Don't enforce.	Legal action. *	Courts	Not a problem.	Copyright legends on all materials.	Contract.
SOFTWARE PROTECTION	ОТНЕВ		ı	1	1	ı	i	ı	ţ	ı
	TRADE SECRET		×	×	ı	1	×	×	×	×
	-7907 TH3IA		×	×	×	×	×	×	×	×
ERY 4S	FICHE WICKO-		1	ı	1	ı	ı	ı	ľ	ı
DEL IVER MEANS	MACHINE BLEDABLE		ı	×	1	1	×	×	×	ŧ
	SOURCE CODE DELIVERY		Never	Applications only	Normally	Never	Never-Majority ExtraFee-Minority	Optional	Normally Small portion- Never	Never
	VENDOR	Software:	Informatics	Computer Associates	SDC	Boole & Babbage	Cincom	Nixdorf	McCormack & Dodge	ADR

* Currently involved in a lawsuit



	SOFTWARE PROTECTION	ENFORCEMENT	Contracts.		Can't enforce.	Customer integrity.		Contracts.	Contracts.		
		ОТНЕВ	ſ	·	B-	ξ		£	3		
		TRADE SECRET	×		×	×		ţ	×		
		COPY- RIGHT	£		×			×	×		
	DEL IVERY MEANS	EICHE WICKO-	ť		ſ	1		ſ	1	<u> </u>	
		MACHINE 3J8AGA38	ŧ		×	ţ		×	ı		
4		SOURCE CODE DELIVERY	Never		Never-Sys. Supp. Normally-Appl.	Never		Normally	Never		
		VENDOR	Mathematica	Software AG	MRI Systems	Pansophic	M.D.S.I.	MSA	Cullinet		



REDISTRIBUTION (1)

- Over half of hardware vendors engage in some form of software redistribution.
 - About half of software yendors do.
 - Usually a discount is involved.
- Added value is usually required by hardware company.
 - Only one software respondent reported enhancing hardware vendor software to run on another vendor's hardware.



REDISTRIBUTION (2)

- End user licenses with either hardware vendor or redistributor.
 - Hardware vendors divided on practice.
 - Software respondents (3) report licenses to themselves.
- A majority of vendors have different terms and conditions with services vendors; examples:
 - Don't sell to some or all.
 - Cost or usage pricing/royalties.
 - Different discounts.



	DIFFERENCES IN T&C TO SERVICES VENDORS			Y - OEM pays wholesale price	Z	Y - Charged additional fee.	Z	Z		Only supply end users	Z	Z	Z
M/HDM	NEND FICENZE END N			>-	z	ı	ι	>-		ı	Z	>-	Z
.w FOR	. АЗНТОИА УЕИDOR			z	Z	ı	1	z		î	z	DK	z
NEW CODE FOR	ORIGINAL	•		Z	>-		l·	z		ı	Z	z	>-
	V ОЭООА 11 ИОЭЯ			z	>-	1	ı	Z		ı	>	z	>-
MARE .	DISCOU REDISTRI			40-60%	Varies	ı	1	>		ı	Y-Varies	Y-DK%	>
	SOFTWA REDISTRI			>-	>-	*	z	>-		Z	>-	>-	>-
	VENDOR		MAINFRAMES:	C.D.C.	Honeywell	Univac	Amdahl	Burroughs	MINI COMPUTERS:	Perkin-Elmer	Gould	DEC	Hewlett-Packard



	DIFFERENCES IN T&C TO SERVICES VENDORS					,			
		Z	Z						
M\HDM	NEND FICENZE END N	z	>-						
W FOR	, АЗНТОИА ЯОПИЗУ	Z	z					-	
NEW CODE FOR	OKIGINAL VENDOR	λ	. >-						
	V DDDED V	\	>-						
WARE.	DISCOL LO 20F1 REDISTRI	>-	>-						
	REDISTRI SOFTW	X	>-						
	VENDOR	Data General	Prime						





	DIFFERENCES IN T&C TO SERVICES VENDORS	. · .	Z	Y - No restrictions on use; Royalty charge.	Z			
S Z E M	NENDON FICENZE M END NZI	ı	ı	1	í			
W FOR	. ЯЭНТОИА УЕИООВ		ı	1	1			
NEW CODE FOR	ORIGINAL		. '	ı	ı	·		
	AV DЭDDA ЗЯГИЎЗЯ	1	1	ı	1			
ARE	DISCOUN	1	1	1	ı			
	SOFTWAR REDISTRIB	Z	Z	Z	z			
	VENDOR	Pansophic	M.D.S.I.	MSA	Cullinet			



INSTALLATION

- Installation terms vary, no pattern.
- Acceptance period varies 30-90 days most common.
- Software companies somewhat more likely to have warranty depend on vendor installation (53%) than hardware companies (40%).
- Fewer software vendors make modifications to software than hardware companies.
 - Common to try to avoid making modifications.
 - Some software companies view modifications as revenue source.



	EXTRA FEE		•	>-	ı		>-		1	>-	>-	>
MODIFICATIONS	MAINTAIN?		ı	Standard Products Only	ı	ı	>-		ı	>-	>-	Y-Appl. only
MODIFI	MAKE?		Z	Y-Avoid	z	z	Y-Appl. only		z	Y-consult.	>-	>-
RANTEE LLATION?	BEC		Z	Z	z	z	Z		z	z	z	Y-op. sys
REE OF ENTATION	C0P		2	,			П		П			
ACCEPTANCE	PERIOD (DAYS)		Y-30	z	Z	Y-30	>-		Z	Y-0p. Sys. 1-14	Z	8
	INSTALLATION SERVICE		Not available	Varies by customer and system	Separate charge	Varies	Free		Free	Free	Separate charge	Free*
	VENDOR	MAINFRAMES:	C.D.C.	Honeywell	Univac	Amdahl	Burroughs	MINICOMPUTERS:	Perkin-Elmer	6ould	DEC	Hewlett-Packard

*Changing for Data Communications Products - Too Expensive



	EXTRA FEE	> -	>-				
MODIFICATIONS	MAINTAIN?		>-				
MODIFI	MAKE?	Special Sys.Group Only	>-				
SANTEE UIRES LATION?	NAAR PEG NATZNI	Z	1st Inst. Only				
REE OF ENTRYION	COD EXOCOMI EXOCOMI		г				
ACCEPTANCE	PERIOD (DAYS)	Z	Y-1	·			
	INSTALLATION SERVICE	Varies	Free				
	VENDOR	Data General	Prime				



	EXTRA FEE		ı	>	>-	ı	>	>-		ı	ı	ı	
MODIFICATIONS	MAINTAIN?		ŧ	Z	>-	ı	Z	Y-avoid		ı	1	ı	
MODIF	MAKE?		Z	Y-Appl.	>-	Z	>-	App.only		z	Z	Z	
SANTEE UIRES LLATION?	BEC		>-	z	>-	z	>	Varies	Product	z	z	Z	
REE OF ENTAIN	C0b	·	2	н	വ	2	1-3	-		2	2	S	
ACCEPTÂNCE	PERIOD (DAYS)		Y-30	Y-30	Y-7 to 28	Y-21 to 45	Y-30 to 90	Y-30 to 90		z	Z	Z	
	INSTALLATION SERVICE		2 days-Free	Free	2 days Separate charge	Free 1-5 days	Separate charge	Separate charge		Not available	Free	Not available	
	VENDOR	SOFTWARE:	Informatics	Computer Associates		Boole & Babbage		Nixdorf		McCormack & Dodge		Mathematica	



	EXTRA FEE		ı	z		ı	ı			
MODIFICATIONS	MAINTAIN?		ı	>-		1	ı			
MODIF	MAKE?		z	>-		z	z			
SANTEE LLATION?	MARI REC IATZNI		z	>		z	z			
REE OF ENTATION	.C0b		*	4			-			
ACCEPTANCE	PERIOD (DAYS)		γ-30	Y-30		z	Z			
	INSTALLATION SERVICE		Free	1-5 days - Free		1-5 days - Free	Free			
	VENDOR	Software AG	MRI Systems	Pansophic	M.D.S.I.	MSA	Cullinet			

* As many as user requires.



SEPARATE MAINTENANCE FEES

TYPE OF	HARDWARE	SOFTWARE
SOFTWARE LICENSE	COMPANIES	COMPANIES
Lease	50%	73%
Continuous Payment	50%	57%
Usage Pricing	N/A	50%
Paid-Up	33%	60%
One Time Charge	64%	58%

NOTE:

- (1) Percentages against companies which have that type of software license.
- (2) If in fee, but optional, counted as separate.



VENDOR		SHOUNTINGS	HSAGE	DAID-IIP	ONF-TIME	
	LEASE	PAYMENT	PRICING	LICENSE	CHARGE	COMMENTS
MAINFRAMES:						
c.D.c.	. 1	ı	-1	ı	In Fee-12 Mo.	Hot-line only
Honeywell	In Fee	ı	ı	ι	SepOpt.	Some free 1 year support
Univac	SepReq. In Fee	Same	ı	Į.	Same	I
Amdahl	ı	In Fee-Opt.	t	ι	Appl. Supp SepOpt. Others-In Fæ	ı
Burroughs	In Fee-Req.	In Fee-Req.	ı	In Fee-Req.	In Fee-Req.	1
MINI COMPUTERS:						
Perkin-Elmer	ı	ı	ı	1	In Fee	ı
	ı	ı	ŧ	12 Mo.	12 Mo.	í
	ı	ı	ı	ţ	SepOpt.	1
Hewlett-Packard	ı	t	t	8	SepOpt.	ı



COMMENTS	3 Options	ı					
ONE-TIME CHARGE	In Fee-Sep Opt.	Sep-Opt.					
PAID-UP LICENSE	I	Sep-Opt.					
USAGE PRICING	1 .	1					
CONTINUOUS	ı	Sep-Opt.					
LEASE	1	Sep-Opt.					
VENDOR	Data General	Prime					



	CONTINUOUS USAGE PAYMENT PRICING	PAID-UP LICENSE	ONE-TIME CHARGE	COMMENTS
In Fee-Sep. 12 MoOpt.	·1	In Fee-Sep. 12 MoOpt.	In Fee-Sep. 12 MoOpt	
In Fee-Sep. In 12 MoOpt.	Fee- Sep MoOpt.	In Fee-Sep. 12 MoOpt.	In Fee-Sep. 12 MoOpt.	
Sep-Opt	- Sep - Opt	Sep-Opt	Sep-Opt	
1	1	1	Sep-Req.	
Sep-Req. S.	Sep-Req. Sep - Req.	Sep-Req.	Sep-Req.	
In Fee-Sep. In 12 MoOpt. 12	In Fee-Sep 1 12 MoOpt. 1	In Fee-Sep. 12 Mo Opt.	In Fee-Sep. 12 MoOpt.	
Sep-Opt In Fee	1	Sep-Opt. In Fee	Sep-Opt. In Fee	
12 MoOpt. In	In Fee-Req.	12 Mo.	12 Mo.	
In Fee-Req. In	In Fee-Req. 12 MoOpt.	12 MoOpt. In Fee	12 MoOpt. In Fee	



VENDOR	LEASE	CONTINUOUS PAYMENT	USAGE PRICING	PAID-UP LICENSE	ONE-TIME CHARGE	COMMENTS
MRI Systems	In Fee	I	1	In Fee	In Fee	
Pansophic	In Fee-Sep. 12 MoOpt.	12 MoOpt.	12 MoOpt	12 MoOpt.	12 MoOpt.	
M.D.S.I.						
	ı	ı	ı	ŧ	12 MoReq.	
Cullinet	Sep-Req.	Sep - Req.	ſ	1	ı	



MAINTENANCE (1)

- Annual fee of 10-12% of purchase price common for software vendors.
 - Varies for other vendors.
- Maintenance typically includes both fixes and enhancements for software companies, less common for hardware companies.
 - Point at which an enhancement becomes a new product can depend on:
 - . Size.
 - . Functionality.
- Minimum maintenance term usually 12 months for software companies - hardware companies show greater variation.
- Hardware maintenance is not a prerequisite for software maintenance by hardware companies.



	ACE .H	MAIN	MAINTENANCE	CE			NCE
VENDOR	IS-MONT MAINTENAN FEE	FIXES	СИНАИСЕ	ЯЗНТО	WHAT IS ENHANCEMENT VS. NEW PRODUCT	MINIMU NAINTENAN MAՅT	HARDWAR MAINTENA 21UDBABAG
MAINFRAMES:							
C.D.C.	Not Offered.	ı	ı	ı	ŧ	t	ı
Honeywel1	Varies By Product	×	×	Ļ	Logical Extension	12 Mo.	z
Univac	None	ı	t	ı	Size - Additional Functionality	z	z
Amdahl	Varies By Product	×	×	ı	Logical Extension & Hardware	z	Z
Burroughs	N/A	×	×	*	DK	Z	Z
MINI COMPUTERS:							
Perkin-Elmer	Not Offered	ı	ı	ı	Additional Functionality	ı	Z
Gould	10%	×	×	I .	Major Rewrite	12 Mo.	>-

* Remote diagnostics



NCE	HARDWAH ANJTNIAM IUDJAJAG	Z	z	z	>-
NCE	MINIMU MAINTENA MRBT	12 Mo.	3 Mo.	12 Mo.	>
	WHAT IS ENHANCEMENT VS. NEW PRODUCT	Judgement by Development Team	Varies by product	Additional Capabilities	Different Capabilities
CE	ОТНЕВ	1	*	£	* *
MAINTENANCE	ЕИНРИСЕD	×	×	×	×
MAI	ŁIXEZ	×	×	×	×
NCE LH	INOM-SI NATUTENAN TEE	Varies	Varies	Varies	Varies by Product
	VENDOR	DEC	Hewlett-Packard	Data General	Prime

* Customer assigned Systems Engineer
** .Preventive monthly main. checks
.On-line diagnostics



ИСЕ .Н	≥.	MAINTENANCE	ANCE			NCE
TNOM-SI NATNTENAN TEE	FIXES	ENHANCED	ОТНЕВ	WHAT IS ENHANCEMENT VS. NEW PRODUCT	MINIMU ANЭTNIAM MRЭT	AARDWAH ANƏTNIAM SIUDƏRƏRGUI
12%	× 	×	×	Functional Change.	12 Mo.	N/A
13%	×	×	l .	Functional Change.		
10%	×	×	1	No Statndard Determinant	12 Mo.	N/A
20%	×	×	1	Size or Function	12 Mo.	NZA
13-20%	×	×	f	Size or Function	12 Mo.	N/A
*	×	× ·	ı	Functional Change	*	Z
Proprietary	ary X	×	×	More than improvement	12 Mo.	N/A
Varies	×	×.	î.	Functional Change	12 Mo.	į.
Varies	×	×	*	New Application	12 Mo.	N/A
Varies	× 	×	ι	1	i.	N/A

* Hasn't been set yet.

^{**} Engineering Service Bulletins periodically issued.



		MAI	MAINTENANCE	Ш		NCE N	NCE
VENDOR	IS-MONT MAINTENAN FEE	FIXES	ЕИНРИСЕD	ЯЗНТО	WHAT IS ENHANCEMENT VS. NEW PRODUCT	IUMINIM IANJTNIAM MAJT	HARDWAR NALINTENAL STUDBABAR
Pansophic	12%	×	×	ſ	Size and Function	12 Mo.	N/A
M.D.S.I.							
MSA	11%	×	×	ı	Universality of Need for Module	12 Mo.	N/A
Cullinet	10%	×	×	ī	Major Rewrite.	12 Mo.	N/A



MAINTENANCE (2)

- Maintenance for old release varies from none to "forever."
- There are few response time promises.
- Trouble report turnaround varies.
 - "Immediate" most common promised.
 - Actual practice will show variations.



FIX NOTIFICATION

TYPE OF	HARDWARE	SOFTWARE
NOTIFICATION	COMPANIES	COMPANIES
On-Site	64%	46%
Telephone	82%	92%
Letter	64%	62%
Newsletter	73%	62%
Maintenance Release	91%	77%
All Users	91%	100%
Applied By:		
Vendor only	9%	7%
Customer only	9%	54%
Both	73%	38%



						FIX	FIX NOTIFICATION	NTION		
				=				S	03	
VENDOR	MAINTENANCE FOR OLD RELEASE	RESPONSE TIME	ON-SILE	TELEPHONE	ЯЗТТЗЛ	NEWS LETTER	MAINTENAN BELEASE	ALL USER	FIX APPLI	TROUBLE REPORT TURNAROUI
MAINFRAMES:										
C.D.C.	ı	į	Z	>-	z	Z	Z	i	ſ	1
Honeywell	3-36 months	No Contract	*	>-	>-	>-	>-	>-	Both	DK
Univac	6 months	No Time	>-	>	>-	>	>-	>	Cust.	Immed.
Amdahl	Varies 6 Month Minimum	No Cont.	>-	>-	z	z	>-	>-	Both	DK
Burroughs	Varies	No Cont.	>-	>-	>	>	>-	>	Both (Varies)	Varies
MINI COMPUTERS:										
Perkin-Elmer	No Contract	No Contract	ı	ı	ī	Į.	>-	>-	Both	DK
Gould	2 Releases	ΝO	ŧ	>-	>-	>-	>-	>-	Vendor	DK
DEC	6 Months	Depends On Contract	>-	>-	>-	>	>	>-	Both	DK



		TROUBLE PREPORT TURNAROU	1 Day Fix	DK-Varies	Immed 30 Days	
	ED.	FIX APPLI BY	Both	Both	Both	
TION	S	ALL USER	>-	>	>-	
FIX NOTIFICATION	: ICE	MAINTENAN RELEASE	>-	>-	>-	
FIX		NEWS LETTER	>-	>	>-	
		ИЗТТЭЛ	>	ı	>-	
	3	ТЕГЕРНОИ	ι	>-	>-	
		ON-SILE	ī	>-	>-	
		RESPONSE TIME	No Time	No obligation	Varies by Contract	
		MAINTENANCE FOR OLD RELEASE	For 1 Release	6 Months	24 Months or 2 Releases	
		VENDOR	Hewlett-Packard	Data General	Prime	



		TROUBLE REPORT TURNAROU		24 Hrs.	Varies	DK	1-2 Days	Σ	DK	Varies	DK	Varies		1 Day	
	03:	FIX APPLI BY		Cust.	Both	Both	Both	Cust.	Both	Cust.	Cust.	Cust.		Cust.	
TION	S	ALL USER		>-	>-	>-	>-	>-	*	>-	>-	>		>-	
NOTIFICATION		MAINTENAN RELEASE			>-	>-	>-	>	ŝ	>-	>-	>-		ı	
FIX		NEWS LETTER		ı	>-	1	>-	>-	*>	>-	>-	g		i	
		ИЗТТЗЛ		>-	>-	ı	>-	>	ı	>-	>-	t		ı	
	3	TELEPHON		>-	>-	>-	>	>-	ł	>-	>-	>-		>-	
		ON-SILE		1	>-	ı	>-	>-	3	ŧ.	1	ŀ		ı	
		RESPONSE TIME		No Contract	No Contract	No Contract	Varies	No Contract	DK	30 Days	No Time	No Contract		No Contract	
		MAINTENANCE FOR OLD RELEASE		ı	DK	2 Months	3-4 Months	Forever	Varies	1 Release	2 Releases	DK		ſ	
		VENDOR	SOFTWARE:	Informatics	Computer Associates	SDC	Boole & Babbage	Cincom	Nixdorf	McCormack & Dodge	ADR	Mathematica	Software AG	MRI Systems	

* Also Dial-up.

^{**} Patch file tapes sent to local offices.



		TROUBLE REPORT TURANAUT	DK		24 Hrs.	1 Day	
	03	FIX APPLI Y8	Both		Cust.	Vendor	
NOIL	S	ALL USER	>-		>-	>-	
FIX NOTIFICATION		MANINTENAN BELEASE	>-		>-	>-	
FIX		NEWS LETTER	ţ		>-	>-	
		LETTER	ţ		>-	>-	
	=	ТЕГЕРНОИ	>-		>	>	
		ON-SITE	>		>-	>	
		RESPONSE TIME	No Time		No Contract	No Contract	
		MAINTENANCE FOR OLD RELEASE	Not covered		Beyond 2 years	DK	
		VENDOR	Pansophic	M.D.S.I.	MSA	Cullinet	



MAINTENANCE (3)

- Hardware companies are more likely to give a price discount for multi-license maintenance than software companies.
- Central maintenance arrangements are common among software companies, less so among hardware companies.
- On-site maintenance pricing ranges from about \$200/day to \$850/day.



MAINTENANCE (3)

	MULTI-LICEN	MULTI-LICENSE MAINTENANCE		
VENDOR	PRICE DISCOUNT	CENTRAL MAINTENANCE	OTHER	ON-SITE MAINTENANCE
MAINFRAMES:				
C.D.C.	ı	ı	ı	Not Offered
Honeywell	ı	×	1	Varies by Systems & Customer
Univac	×	×	1	10-15% of monthly lease fee. \$/Hour depends on skill level
Amdahl	ı	X-optional	ı	Fixed price by hour
Burroughs	ţ	×	ı	Not Offered
MINI COMPUTERS:				
Perkin-Elmer	N/A	N/A	ı	Not Offered
Gould	×	×	ı	Not Offered
DEC	×	×	ı	DK
Hewlett-Packard	×	×	ı	\$100/Hour + Travel Expenses
Data General	1	ł	1	Fixed Price by Product
Prime	×	×	t	Varies



	MULTI-LICE	MULTI-LICENSE MAINTENANCE		
VENDOR	PRICE DISCOUNT	CENTRAL MAINTENANCE	ОТНЕК	ON-SITE MAINTENANCE
SOFTWARE:				
Informatics	×	×	1	Not offered sep.
Computer Associates	1	1	Varies	Not offered sep.
SDC	1	ı	1	ì
Boole & Babbage	×	×	ı	Not offered sep.
Cincom	×	×	ı	\$100-\$125/Hour.
Nixdorf	×	×	ı	\$75/Hour
McCormack & Dodge	ı	×	ı	Not offered sep.
ADR	*	*	ł	Not offered.
Mathematica	×	ι	ı	Not offered
Software AG				
MRI Systems	ı	ı	ı	N/A
Pansophic	ı	×	ı	\$2000/Day
M.D.S.I.				

* Execute only versions-Not standard.



MAINTENANCE (3)

	MIII TI-1 ICE	MIII TI-I ICENSE MAINTENANCE		
	10011			
VENDOR	PRICE DISCOUNT	CENTRAL MAINTENANCE	ОТНЕВ	ON-SITE MAINTENANCE
MSA	1		No Discount (Separate)	\$500/Day.
Cullinet	×	×	Negotiable	DK



MARKETING

All hardware sales people also sell software.

- INPUT -



	SALES FORCE SELLS	FORCE LS	
VENDOR	HARDWARE	SOFTWARE	COMMENTS
MAINFRAMES:			
C.D.C.	×	×	
Honeywell	×	×	
Univac	×	×	
Amdahl	×	×	
Burroughs	×	×	
MINI COMPUTERS:			
Perkin-Elmer	×	×	
plnob	×	×	
DEC	×	×	
Hewlett-Packard	×	×	
Data General	×	×	
Prime	×	×	



TRENDS

- Respondees did not tend to forecast price increases.
- Pricing factors varied by company no discernable pattern.
- Cost factors varied no discernable pattern.
- Hardware vendors becoming more service oriented in relation to software products.
- No pattern evolving for licensing methods.



	% PRI	% PRICE CHANGES	10			
VENDOR	1984	1985	1986	MOST IMPORTANT PRICING FACTOR	MOST IMPORTANT COST FACTOR	COMMENTS
MAINFRAMES:						
c.D.c.	0	+20%	DK	Maximize Profits	Sales & Mktg.	
Honeywell	0	+10%	% 5+	Targetted Profit	Sales & Mktg.	
Univac	+10-15%	+10%	+10%	Increase Revenues	Profit Allocation	
Amdahl	DK	DK	DK	DK	DK	
Burroughs	0	DK	DK	DK	DK	
MINI COMPUTERS:						
Perkin-Elmer	DK	DK	DK	1	Profit Allocation R & D Cost	
Gould	0	*	*	Meet competition Price	Research & Devel.	
DEC	0	0	DK	DK	DK	
Hewlett-Packard	Ν	DK	DK	DK	DK	
Data General	DK	DK	- DK	DK	DK	
Prime	DK	DK	DK	Meet competition price	Sales & Mktg.	

* Whatever the market will bear



	% PR]	% PRICE CHANGES	S			
VENDOR	1984	1985	1986	MOST IMPORTANT PRICING FACTOR	MOST IMPORTANT COST FACTOR	COMMENTS
SOFTWARE:						
Informatics	0	0	10-15%	Increase Market Share	Research & Devel.	
Computer Assoc.	ı	ı	ı	Proprietary	Proprietary	
SDC	0	DK	DK	Maintain Market Share None very important	None very important	
Poole & Babbage	0	2%	NO.	Value Price	Customer Support	
Cincom	2%	10%	10%	Meet Competition Price Research & Devel.	Research & Devel.	
Nixdorf	DK	DK	NO.	Meet Competition Price Labor Intensive	Labor Intensive Fees	
McCormack & Dodge	*	*	*	*	*	
ADR	*	*	*	*	*	
Mathematica	*	*	*	*	*	
Software AG						
MRI Systems	0	20%	DK	Increase Reyenue	Research & Devel.	
Pansophic	*	*	*	*	*	
M.D.S.I.						

* Proprietary



4						 		
	COMMENTS							
	MOST IMPORTANT COST FACTOR	Research & Devel.	Research & Devel.					
	MOST IMPORTANT PRICING FACTOR	Value Price	DK					
	1986	%8	X N					
% PRICE CHANGES	1985	%8	지					
% PRI	1984	%8	Δ					
	VENDOR	MSA	Cullinet					



	FUTURE T&C CHANGES	FUTURE T&C CHANGES			FUTURE USAGE OF LICENSING METHODS	OF ODS	
VENDOR	LICENSING	MAINTENANCE	LEASE	RENTAL	PAID-UP	ONE-TIME	USAGE
MAINFRAMES:			·				
C.D.C.	ı	ı	Same	Same	Increase	Increase	Same
Honeywell	Will follow competition	More service Use 3rd parties	DK	DK	DK	Ŋ	DK
Univac	Allow 3rd party software redistribution	Increase On-Line diagnostics. Offer separately priced central support plan	Decrease	Decrease	N/A	Increase	N/A
Amdahl	ı	ı	DK	YO.	DK	DK	DK
Burroughs	More towards generic software	Increase On-Line diagnostics	Decrease	Decrease	Decrease	Increase	Same
MINI COMPUTERS:							
Perkin-Elmer	ı	ı	N/A	N/A	N/A	Same	N/A
Gould	Protection of original soft- ware - Generic software	Increase On-Line & generally improved software diagnostics	Same	Same	Increase	Increase	Same



	USAGE	DK	N/A	N/A	DX	
			Z	Z		
	ONE-TIME	DK	ı	Same	Σ	
Е ОF 'HODS	lo .			<i>O</i> ,		
FUTURE USAGE OF LICENSING METHODS	PAID-UP	DK	N/A	N/A	Ϋ́	
FUTUR	ρA				Δ	
	RENTAL	DK	N/A	NYA	A.	
	α.					
	LEASE	N N	N/A	N/A	Ä.	
U	CE	-Line	n-line s. it	ı- stics		
FUTURE T&C CHANGES	MAINTENANCE	Increase On-Line Delivery	Increase on-line diagnostics. Lower profit targets. Price Decreases	Increased on- line diagnostics	Stay as is	
FUT	MA J	Incre	Incre diagn Lower targe Price	Incre	Stay	
T&C S	SING				ب. د.	
FUTURE T&C CHANGES	LICENSING	None	ı	None	Stay as it now	
					Sta	-
			rd			
	VENDOR		-Packa	neral		
	>	DEC	Hewlett-Packard	Data General	Prime	



	USAGE	Increase	1	Increase	Same	Increase	N/A
0F 0DS	ONE-TIME	Same	Decrease	Decrease	Same	Decrease	Decrease
FUTURE USAGE OF LICENSING METHODS	PAID-UP	Same	Decrease	Decrease	Same	Increase	N/A
	RENTAL	Decrease	Increase	Same	Same	Decrease	Increase
	LEASE	Increase	Increase	Same	Same	Increase	N/A
FUTURE T&C CHANGES	MAINTENANCE	None	I	ı	ı	Increased Support Services	Increased Remote Telecomm. Support More levels of Support
FUTURE T&C CHANGES	LICENSING	Increased site licensing. Increased Main- frame SWleasing	Increased - 1-3 Yr. Licenses	1	ı	Increased Usage Pricing. More Volume Discounting.	Push forUniform Product Set.
	VENDOR	SOFTWARE: Informatics	Computer Associates	SDC	Boole & Babbage	Cincom	Nixdorf



McCormack & Dodge - - - Increase Same Increase I		FUTURE T&C CHANGES	FUTURE T&C CHANGES		7	FUTURE USAGE OF LICENSING METHODS	0F 0DS	
Increase Same Same Same Same Same	VENDOR	LICENSING	MAINTENANCE	LEASE	RENTAL	PAID-UP	ONE-TIME	USAGE
-	McCormack & Dodge	•		Increase	Same	Same	Same	Same
tware AG Systems	ADR	1	1 ×	DK	DK	DK	DK	DK
Systems Decrease N/A Increase Systems Increase Increase Decrease Sohic Multi-year main-tenance contracts so user can get price protection - Same Same Same Same	Mathematica	1	•	Increase	Same	N/A	Increase	N/A
Systems Decrease N/A Increase sophic Increase Increase Decrease Decrease Lenance contracts so user can get price protection price protection Same Same Same Same	Software AG							
So user can get price protection linet - Increase Increase Decrease Decrease Same Same Same Same Same Same Same Sam	MRI Systems	ı	1	Decrease	N/A	Increase	Increase	N/A
Multi-year main- tenance contracts so user can get price protection - Same Same Same Same	Pansophic	ı	1 -	Increase	Increase	Decrease	Decrease	Increase
- Multi-year main- Same Same tenance contracts so user can get price protection - Same Same Same	M.D.S.I.							
Same Same	MSA	1	Multi-year main- tenance contracts so user can get price protection	Same	Same	Ѕате	Same	Same
	Cullinet	ı	ſ	Same	Same	Same	Same	Same



